



Department of Energy

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MEMORANDUM FOR DISTRIBUTION

FROM:

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ACTING DEPARTMENTAL REPRESENTATIVE TO THE
DEFENSE NUCLEAR FACILITIES SAFETY BOARD
OFFICE OF HEALTH, SAFETY AND SECURITY

SUBJECT:

Facility Representative Program Performance Indicators Quarterly
Report, January – March (1st Quarter CY2009)

Attached is the Facility Representative (FR) Program Performance Indicators Quarterly Report covering the period from January to March 2009. Data for these indicators are gathered by Field elements quarterly per DOE-STD-1063-2006, *Facility Representatives*, and reported to Headquarters program offices for evaluation and feedback to improve the FR Program. A summary of this quarter's data concluded:

78% Fully Qualified (last Quarter was 76%)
90% Staffing Level (last Quarter was 89%)
47% Time Spent in the Field (DOE goal is > 40%)
74% Time Spent in Oversight Activities (DOE Goal is > 65%)

Percentages are based on FR staffing analyses at 209 Full Time Equivalents (FTEs) and 189 FTEs actual staffing. Fully qualified FR totals for this period broken down by program were as follows: Environmental Management (EM) had 74% fully qualified, Nuclear Energy (NE) had 100% fully qualified, National Nuclear Security Administration (NNSA) had 77% fully qualified, and Science (SC) had 89% fully qualified. The Department of Energy (DOE) goal for fully qualified FRs is greater than 80%.

FR attrition for this period was three, with two coming from SC, one from NNSA. These included one lateral, one retirement, and one promotion.

Current FR information and past quarterly performance indicator reports are accessible at the FR web site at [Http://www.hss.energy.gov/deprep/facrep/](http://www.hss.energy.gov/deprep/facrep/). Should you have any questions or comments on this report, please contact me or the DOE Facility Representative Program Manager, James Heffner at 202-586-3690.

Attachment



OFFICE OF ENVIRONMENTAL MANAGEMENT SITES

Facility Representative Program Performance Indicators (1QCY2009)

<u>Field or Ops Office</u>	<u>Staffing Analysis</u>	<u>FTEs</u>	<u>Actual Staffing</u>	<u>% Staffing</u>	<u>Attrition</u>	<u>% Core Qualified</u>	<u>% Fully Qualified</u>	<u>% Field Time *</u>	<u>% Oversight Time **</u>
CBFO	2	3	2	100	0	50	50	50	78
ID (EM)	13	13	11	85	0	100	91	46	86
OR (EM)	19	18	18	95	0	72	72	43	61
ORP	15	15	15	100	0	73	73	57	86
PPPO	6	6	6	100	0	67	67	41	68
RL	19	19	19	100	0	84	84	45	69
SR	32	32	25	78	0	68	68	49	71
WVDP	2	2	2	100	0	50	50	49	72
EM Totals	108	108	98	91	0	75	74	48	73
DOE GOALS	-	-	-	100	-	-	>80	>40	>65

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** % Oversight Time includes % Field Time

EM Facility Representative (FR) Highlights:

- CBFO: Hired a new FR.
- ID (EM): A Facility and Material Disposition Project (FMDP) FR issued the contractor a CONCERN for the failure to take the required radiological precautions when anti-contamination clothing was breached in a posted High Contamination Area / Airborne Radioactivity Area. An FR observed personnel tear in their outer layer of protective clothing while working and they did not exit the area. Instead, the Radiological Controls Technician (RCT) taped over the breached area and had the worker return to work.
- ID (EM): A Waste Disposition Project (WDP) FR identified two qualification packages were not appropriately completed for a shift operations manager. The FR further noted personnel were signing into facility logbooks as foreman that were not qualified to stand the watch unsupervised.
- ID (EM): An Advanced Mixed Waste Treatment Plant (AMWTP) FR determined the contractor exceeded the work scope authorized within a "troubleshoot" work package for a facility's ventilation system. At the point when the defective equipment/deficient condition was identified, the contractor should have prepared a corrective maintenance work package identifying the hazards and hazard controls for the corrective maintenance.
- ID (EM): At the request of the Assistant Manager for Nuclear and Safety Performance Division, the Facility and Material Disposition Project FR served as a member of the Corrective Action Review Team that reviewed and validated the effectiveness of the contractor corrective actions taken for the deficiencies identified in the Office of Health, Safety and Security (HSS) Review of Environment, Safety and Health (ES&H) at the Materials and Fuels Complex.
- ID (EM): During the performance of DOE 0 226.1 A, Issues Management Compliance Surveillance, a WDP FR determined the contractor procedures do not contain documented guidance addressing the use of risk based graded approach to identify those issues requiring effectiveness reviews as specified by the DOE Order.
- ID (EM): The announcement to fill the vacant FR positions has been issued.
- OR (EM): An FR continued to perform oversight of Isotek surveillance and maintenance activities in Building 3019.
- OR (EM): An FR toured DOE Headquarters personnel for a scoping visit regarding the upcoming ISMS review for Isotek.

- OR (EM): During a walkdown associated with a work package for running telecommunications wires, it was discovered that the room, although in direct communication with Building 3019, was not analyzed in the 3019 safety basis. A significant category 3 PISA was filed regarding this condition.
- OR (EM): Other notable FR statistics include the execution of 408 walkthroughs and/or assessments; the reviewed in excess of 769 contractor documents; and the attendance in excess of 932 meetings, briefings, PODS, and POWs in support of contractor activities.
- ORP: An FR identified a contractor deficiency in review of requirements when using manual lifting devices. The contractor has emphasized associated requirements to review operator manuals prior to use of mechanical equipment used to lift commodities.
- ORP: An FR identified a lack of control (combustibles nearby) of an area designated for hot work for welding at the Waste Treatment Plant. It was identified to the contractor and the area was cleared of the material.
- ORP: An FR identified a poorly secured tank farm, which allowed unimpeded access. The result was an extent of condition that identified this as a problem with a gate design commonly used at the site. The correction of this problem assures security at the site is maintained in accordance with Resource Conservation and Recovery Act requirements for hazardous waste storage facilities.
- ORP: An FR identified two instances, on consecutive days, of procedural violations during a slurry sampling evolution at the 242-A Evaporator. This issue led to reemphasizing Conduct of Operations expectations and strengthening of senior supervisor watch expectations by the contractor.
- ORP: An FR identified vulnerability in the contractors planning and procedures related to shutting down an errant waste transfer. The FR suggested that an alternate pump shutdown point for each transfer pump be identified and briefed to the transfer crew. This would alleviate the need for a worker to walk through a potential waste spray or puddle to shutdown a transfer pump. Instead the pump could be shutdown remotely from a safe location. The contractor has modified the procedure template so that any transfer procedure identifies a safe shutdown location that is remote from the pump area.
- ORP: FRs observed that failure of the contractor to initiate a periodic maintenance and surveillance (PM/S) Task Form for the receipt valve, melter valve, plant wash/SBS condensate, and feed/prep valve bulges at the Low Activity Waste facility and to provide the technical basis for deviation from the manufacture's recommended preventative maintenance was a violation of procedure and was considered a finding.
- ORP: The FR identified a significant operational weakness during a tabletop exercise. Operations management took prompt action to correct it with all operating crews.
- RL: An FR identified issues with configuration control on installed systems across the River Corridor Project. Examples include the River Remediation Sites and Environmental Restoration Disposal Facility (ERDF).
- RL: An FR identified issues with the Plutonium Finishing Plant (PFP) contractor performing work out of scope of the work package during maintenance on the filter frames in Filter Room 310.
- RL: An FR identified that allowable storage and use times of gloves used in glove bags potentially exceed manufacturer life expectancy at PFP.
- RL: An FR identified that the contractor applied misleading labeling on shared neutral panels at MO-276.
- RL: An FR identified that the contractor did not perform adequate independent verifications of Lockouts at the Fast Flux Test Facility (FFTF) Sub-station.
- RL: An FR identified that the workers were wearing inadequate personal protective equipment (PPE) during electrical panel work at MO-276.

- RL: FRs identified issues with all the contractors not reporting events in accordance with the Occurrence Reporting system. Examples include Washington Closure Hanford (WCH) not identifying the 327 Waste Box contacting the worker as a near miss, and a Deactivation and Decommissioning (D&D) incident not initially reported as an Occurrence where a worker placed his foot through the ceiling at building 2723-W.
- SR: An Assistant Manager for Closure Project (AMCP) FR identified that the Site Infrastructure group did not utilize a formal process, such as the use of a Non-Conformance Report, to ensure all proper engineering controls were instituted for a leaking equalization tank at the D-Area Powerhouse.
- SR: An Assistant Manager for Waste Disposition Project (AMWDP) FR provided oversight of start-up activities for loading and shipping of Remote-Handled TRU Waste.
- SR: An AMWDP FR provided oversight of start-up activities in support of a new X-ray unit on Pad 4 supporting TRU Waste Characterization.
- SR: One FR qualified during this period. One vacancy was filled this period. Personnel actions are nearing completion to fill the remaining vacancies.
- SR: While monitoring a caustic sump neutralization, an AMCP FR identified that the scope of work had changed without revising the hazard analysis and obtaining the appropriate Subject Matter Expert (SME) approvals.
- WVDP: The FR Program co-conducted an Industrial Hygiene and Safety Program review that identified improper use of extension cords, man door repairs, and improper storage of flammables and other hazardous items.
- WVDP: The FR Program conducted three monthly FR site assessments focused on Conduct of Operations that identified housekeeping, log keeping, and procedure deficiencies.
- WVDP: The FR Program supported an external assessment of the WVDP Conduct of Operations Program.
- WVDP: The WVDP FR Program Description (WVDP-003) was revised.

OFFICE OF NUCLEAR ENERGY SITES

Facility Representative Program Performance Indicators (1QCY2009)

<u>Field or Ops Office</u>	<u>Staffing Analysis</u>	<u>FTEs</u>	<u>Actual Staffing</u>	<u>% Staffing</u>	<u>Attrition</u>	<u>% Core Qualified</u>	<u>% Fully Qualified</u>	<u>% Field Time *</u>	<u>% Oversight Time **</u>
ID (NE)	11	11	11	100	0	100	100	52	83
NE Totals	11	11	11	100	0	100	100	52	83
DOE GOALS	-	-	-	100	-	-	>80	>40	>65

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** % Oversight Time includes % Field Time

NE Facility Representative (FR) Highlights:

- ID (NE): A Laboratory Support Complex FR discovered that access to, and work in, inactive facilities was not being controlled in accordance with Fire Safety requirements or ISMS work control systems.
- ID (NE): A Laboratory Support Complex FR discovered three separate instances of pressure vessel safety requirements not met. These included an improperly installed pressure relief, an in-use pressure vessel without current inspection, and a pressure relief valve not maintained in accordance with company procedures.
- ID (NE): A Laboratory Support Complex FR identified a repeat occurrence of Emergency Safety Showers/Eyewash Stations obstructed by storage cabinets or equipment. The FR further discovered that monthly inspection criteria do not contain requirements for checking for obstructions, only annual inspections do.
- ID (NE): During an event involving a leaking pressurized tritium container, an Advanced Test Reactor (ATR) Complex FR recommended to the contractor a process for the recovery of tritium from a leaking gas cylinder. The contractor implemented the recommendation and recovered an additional 200-300 curies of Tritium resulting in a significant cost savings and reduced impact to the environment.
- ID (NE): On multiple occasions ATR Complex FRs identified open energized electrical panels that did not provide the required prevention of inadvertent contact with energized components. These events were reported to the contractor who reported the events in the Occurrence Reporting and Processing System (ORPS) and is developing corrective actions.
- ID (NE): On multiple occasions ATR Complex FRs identified hazardous energy control (Lockout/Tagout) lockout devices installed in a manner that did not properly prevent operation of the controlled component. Issues were provided as a concern to the contractor who is developing corrective actions.
- ID (NE): The Materials and Fuels Complex (MFC) FRs identified a Concern that Facilities and Site Services personnel have repeatedly failed to follow the approved procedures for operation of equipment and systems under their control.

NATIONAL NUCLEAR SECURITY ADMINISTRATION SITES

Facility Representative Program Performance Indicators (1QCY2009)

<u>Site Office</u>	<u>Staffing Analysis</u>	<u>FTEs</u>	<u>Actual Staffing</u>	<u>% Staffing</u>	<u>Attrition</u>	<u>% Core Qualified</u>	<u>% Fully Qualified</u>	<u>% Field Time *</u>	<u>% Oversight Time **</u>
LASO	14	14	13	93	0	62	46	49	73
LSO	10	10	7	70	1	100	100	44	73
NSO	9	9	9	100	0	100	78	47	69
SRSO	4	4	4	100	0	100	75	48	78
SSO	11	11	8	73	0	100	88	35	77
YSO	12	11	11	92	0	91	91	48	73
NNSA Totals	60	59	52	87	1	89	77	46	73
DOE GOALS	-	-	-	100	-	-	>80	>40	>65

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** % Oversight Time includes % Field Time

NNSA Facility Representative (FR) Highlights:

- LASO: An FR identified 30 Waste Characterization, Reduction, and Repackaging Facility (WCRRF) response procedures were past their required review date.
- LASO: An FR identified a criticality concern with drums improperly stored on PAD 10.
- LASO: An FR identified an unvented TRU Waste container in Plutonium Facility (PF-4) basement which resulted in a TSR violation and PISA with a positive USQ.
- LASO: An FR identified Lockout/Tagout (LO/TO) violations for Hazardous Energy Control.
- LASO: An FR shadowed the Criticality Alarm System (CAS) Vital Safety System Assessment.
- LASO: During a routine walk down of Material Disposal Area (MDA) C, an FR noted that a newly sited drilling rig was operating within a few feet of a storm water runoff. If any of the hoses on the rig leaked, fluids could potentially enter the ditch and contaminate surface water. Although it not required, the FR convinced the subcontractor to place runoff prevention measures between the rig and the ditch.
- LASO: One FR remains on detail to the LASO National Security Missions office until his transfer is official. Until then, the FR will continue to encumber an FR slot, but will not be included in the on-board count. One FR is now included in the FR count as she has relinquished her Readiness Program management functions to her replacement. Five FRs are in Phase I (Core) Training and two FRs are in Phase II (Full Qualification) training.
- LSO: An FR provided oversight of a contractor incident analysis team that investigated a glovebox explosion event.
- LSO: An FR provided oversight of a contractor management self assessment in support of a contractor readiness assessment for the tritium grinder workstation.
- LSO: An FR provided oversight of a contractor operational readiness review for the Building 334 hazard category change to a category 2 nuclear facility.
- LSO: FRs participated in the functional area review of DOE O 5480.19, Chapter 18. Results of this review concluded that the contractor has not adequately implemented an equipment and piping labeling program.
- LSO: One FR completed his initial FR qualification for the Nuclear Materials Technology Program (NMTP) Category 3 nuclear facilities. One LSO FR accepted a position with another organization in LSO. This has resulted in LSO being three FRs below staffing level.

- LSO: One FR supported the review of a DSA annual update for a category 3 nuclear facility.
- NSO: During a maintenance assessment, the Nevada Site Office Criticality Experiment Facility (CEF) FR discovered crafts staging materials for work on a safety class structure without having a work package with them, and in a location not included on the facility's Plan of the Day. Work was paused, and a root cause analysis was held, identifying issues regarding communication between craft and management.
- NSO: The Balance of Site FR completed the written exam portion of his TQP, and is on track to finish qualifications May 20, 2009.
- NSO: The FR Group is presently scheduled to shadow a minimum of 32 contractor performed assessments in FY09, and these are assigned via Pegasus and identified in the approved NSO Master Activity Schedule.
- NSO: The High Energy Physics FR provided coverage for FFT-3, fifth in the Phoenix series of experiments.
- NSO: The High Energy Physics FR provided safety oversight coverage for JASPER Shot 86 (SNM Experiment) and subsequent (ongoing) recovery from the contamination event resulting from this experiment.
- NSO: The NSO CEF FR rejected two revisions of an update to include CEF in the Device Assembly Facility (DAF) Conduct of Operations applicability matrix due to incomplete and inadequate implementing documents. The FR met with the contractor to define expectations, and a revised submittal is currently under review.
- NSO: The Remote Sensing Laboratory FR performed Shadow Assessments of NSO contractor management assessments on Confined Spaces and Source Accountability and Control.
- SRSO: One FR completed the requirements for Interim Qualifications and another completed the requirements for Final Qualifications.
- SSO: An FR completed a surveillance report verifying compliance of the Annular Core Research Reactor Technical Safety Requirements for calendar year 2008.
- SSO: An FR developed a Performance Monitoring Plan to allow the SSO Nuclear Operations group to monitor and document their review of Nuclear Safety metrics developed by the contractor.
- SSO: An FR rejected a reportedly completed Occurrence Report Corrective Action that was not implemented via revision to a Power Determination by Pool Heatup operating procedure. A Weakness identified by the FR on the same procedure was also found not addressed. The contractor was informed and took action to revise the procedure. The FR conducted a For-Cause surveillance, documenting that the Corrective Action and Weakness were fully addressed by the procedure revision.
- SSO: An FR review of an Unreviewed Safety Question Determination (USQD) for Transient Rod design changes and found it did not contain adequate information to support the conclusion. The USQD was revised, incorporating the information that supported the conclusion.
- SSO: The Annular Core Research Reactor FR closely monitored initial Annular Core Research Reactor operations following a two month contractor imposed operational pause.
- SSO: The Sandia Pulsed Reactor Critical Experiments FR reviewed the completed Corrective Action Plans and Evidence Packages addressing Findings from the DOE Operational Readiness Review, and forwarded a recommendation for approval.
- YSO: An FR identified a Criticality Accident Alarm System with expired calibration issue that resulted in a TSR violation.
- YSO: An FR led the Readiness Verification Review on the construction phase of the Highly Enriched Uranium Materials Facility.

- YSO: An FR received a personal award from a Defense Nuclear Facilities Safety Board member recognizing the FR's knowledge of operations and commitment to safety.

OFFICE OF SCIENCE SITES

Facility Representative Program Performance Indicators (1QCY2009)

<u>Area/Site Office</u>	<u>Staffing Analysis</u>	<u>FTEs</u>	<u>Actual Staffing</u>	<u>% Staffing</u>	<u>Attrition</u>	<u>% Core Qualified</u>	<u>% Fully Qualified</u>	<u>% Field Time *</u>	<u>% Oversight Time **</u>
ASO	5	5	4	80	0	100	100	24	82
BHSO	4	4	4	100	0	100	100	56	82
FSO	2	2	2	100	1	50	50	68	94
OR (SC)	5	5	5	100	0	80	80	40	73
PNSO	4	3	3	75	1	100	100	43	72
SC Totals	20	19	18	90	2	89	89	44	79
DOE GOALS	-	-	-	100	-	-	>80	>40	>65

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SC Facility Representative (FR) Highlights:

- ASO: FRs have been conducting special meetings and reviewing documentation related to Argonne accelerator facilities. This effort includes update of Safety Assessment Documents and preparations for startup of an additional accelerator system.
- ASO: FRs have been overseeing special emphasis in disposal of significant amounts of radioactive materials from the Argonne site. This has resulted in reduced risk and other benefits.
- BHSO: FRs participated in the Brookhaven National Laboratory Accelerator Test Facility capacitor fire incident investigation. The fire occurred on February 18, 2009.
- BHSO: FRs participated in the site FR Program Assessment and Staffing Analysis review.
- FSO: One fully qualified FR was promoted and a new FR started in March. Core Qualification for the new FR is underway.
- FSO: The fully qualified FR was involved in the following activities for the quarter: preparation of the DOE-SC Fermi National Accelerator Laboratory Accelerator Inventory; preparation for the DOE-SC Accelerator Safety Review; performance of the DOE-SC Accelerator Safety Review; and preparation for the DOE-SC Nuclear Material Self-Assessment and Review.
- OR (SC): A coordinated assessment was conducted of the radiological surveys and posting at the ORNL nuclear facilities and the Spallation Neutron Source (SNS). This assessment was completed jointly by the FRs, and an overall assessment report was prepared.
- OR (SC): During the quarter 110 FR walkthroughs were conducted and documented in the ORION tracking system. Thirteen of these walkthroughs were conducted jointly with ES&H subject matter experts.
- PNSO: An FR performed a surveillance on Criticality Alarm System testing at the Hanford 325 Building. One observation was identified to indicate that corrective actions were needed to preclude future system operability issues.
- PNSO: An FR walkthrough found pinhole leak on a low pressure steam heating coil. Facility management was notified of the deficiency.
- PNSO: An FR walkthrough found that maintenance activities had caused chiller liquid level to drop below the site gage indication level and that operator round sheets weren't tracking this parameter. Facility management was notified of these deficiencies.

- PNSO: FR staffing decreased by one due to a retirement. Long-term FR staffing will be three FRs as determined by Management.
- PNSO: While reviewing the contractor's Hazardous Energy Control process, an FR identified a procedural error in the sequence for isolating and attaching locks and tags. This issue was discussed with the Contractor's LO/TO committee and it was agreed that the procedure should be changed to clarify the proper sequence.
- PNSO: While touring Building 331, an FR observed questionable electrical safety practices for maintenance being performed on an X-Ray cabinet. The FR discussed these concerns with the contractor's Health & Safety Representative and the assigned Work Team Leader. Based on these discussions and the contractor's follow-up, the contractor determined that the Hazardous Energy Control process was not followed and reported this event as an ORPS reportable occurrence.